

General Protocol for Incidental Take Authorization

Listed Plants in Prairies, Grasslands, and Savannas (*Required on Public Lands, Encouraged on Private Lands*)

If the management activity is for the purpose of recovering, maintaining or improving the grassland, prairie or savanna ecosystem that includes habitat for one or more of the species listed below in Table 1, then incidental take is allowed if these conditions are followed.

- A. **Burning:** Prescribed fire is compatible with all of Wisconsin's threatened or endangered prairie and savanna plants AT SOME POINT in the year. Please refer to Table 1 below for the dates when burning will not result in take. These dates are based on the plants' flowering time. That is the time when the plant has most of its energy above ground, and therefore may be vulnerable to fire. If you burn part ($\leq 25\%$ is allowed) of a rare plant population during flowering time, report the fire's effects on the plants to BER. We will use this information to improve incidental take guidelines in coming years. Burning is limited to 25 % of the populations of monocarpic species during the period when the plant holds its seeds. In a few cases, we have data suggesting that a species survives fire even when it is flowering. Those are marked with "no restriction", in Table 1.
- B. **Mowing:** Managers may mow perennial species once per growing season. Because mowing destroys much of a plant's foliage, repeated treatments during the growing season may lead to mortality of threatened or endangered plants, and is prohibited without special permission. Poorly timed mowing could destroy populations of the monocarpic plants *Agalinis gattereri*, *Agalinis skinneriana*, *Polygala incarnata*, and *Polytaenia nuttallii*. The first three of those species are short, and can survive mowing at the heights suggested in Table 1. *Polytaenia nuttallii* is tall, and must not be mowed while it is flowering or developing fruit. None of the protected plant species may be annually mowed in excess of five years.
- C. **Selective Brush/Tree-cutting:** Unless the workers can recognize listed plants, brush cutting may result in cutting down or trampling rare plants. In cases where the workers do recognize the listed plants, they may judiciously cut around the plants at any time of year. If they can not recognize the plants, cutters must follow the guidelines for mowing, printed above. Tree cutting using heavy equipment may kill rare plants through trampling and tearing up roots. For that reason, it is only allowed in threatened or endangered plant population sites while the ground is frozen. Tree cutting using light equipment and/or horses may destroy the plant parts above ground, but will generally not tear up roots. It is allowed during the same seasons when burning is allowed, and also while the ground is frozen.
- D. **Grazing:** We expect grazing to have detrimental or fatal effects on some threatened or endangered plants, but to have indirect positive effects for some. Very few data are available on this subject. We require that any grazing plan be accompanied by a monitoring scheme, and that the results be reported to the BER. Grazing of up to 25% of a threatened or endangered species population is allowed.
- E. **Herbicide Use:** Broadcast herbicide in rare plant populations during the growing season will likely result in mortality. As a general practice, broadcast herbicide is prohibited from threatened or endangered plant population sites. Most of the threatened and endangered plant species that grow in

prairies and savannas are dormant during some portion of the year. For those species, judicious timing may allow broadcast herbicide application without significant threat to protected plants. Contact BER if you wish to develop such a plan. Stem-by-stem herbicide application to exotic species and woody plants will not likely result in mortality of threatened or endangered plants. Applicators in rare plant population sites must be trained to recognize the protected plant species. Leave a suitable untreated buffer area around rare plants to prevent damage from herbicide drift.

F. **Tree planting:** Planters may mechanically disrupt protected plants. Managers must secure special permission for tree planting through consultation with the BER.

G. **Flooding:** Flooding will kill any of these species and is not permitted.

H. **Harvesting Seed from Threatened or Endangered Plants:** Collecting seed from perennial plants will not lead to take unless the collector pulls the plant out of the ground. After flowering, *Agalinis gattingeri*, *Agalinis skinneriana*, *Polygala incarnata*, and *Polytaenia nuttalli* survive to the next year only as seeds. They are not perennials. Removal of those seeds may lead to take, and may reduce the population size in subsequent years. Seeds of the above-listed non-perennial plants growing in remnant prairies or savannas may only be harvested if the seed will be sown in immediately adjacent patches of protected potential habitat. No more than one fourth of the seed in that population may be collected in any one year. If the manager intends to sow the seed somewhere other than immediately adjacent to the donor population, she or he must secure an Endangered Species Permit from the Bureau of Endangered Resources before harvesting seed. Managers may collect seed from listed perennial plants growing in planted prairies or in propagation beds without special incidental take permit.

Definition of “Site” for Listed Prairie, Grassland and Savanna Plants: This protocol refers to treatments to the actual land where listed plants are rooted within a given project area. The more precisely a manager determines the site location, the less area falls under management restrictions. BER’s *Guide to Wisconsin’s Endangered and Threatened Plants* and the University of Wisconsin’s web site, *Wisconsin’s Vascular Plants* [<http://wiscinfo.doit.wisc.edu/herbarium/>] offer descriptions of plant habitats. For further assistance in determining a rare plant location, contact BER.

**TABLE 1. Specifics of Protocol for Incidental Take Authorization
for Listed Plants in Prairies, Grasslands, and Savannas
(Required on Public Lands, Encouraged on Private Lands)**

| Latin Plant Name (P – perennial M – monocarpic) | English Plant Name | Season of no restrictions on prescribed burns | Season when managers may burn only 25% of local population | Mowing no more than once each growing season † | Season when horse-powered tree removal is allowed | Season when tree harvest with heavy equipment is allowed |
|--|---------------------------------|--|---|---|--|---|
| <i>Agalinis gattereri</i> M | Round-stemmed False Foxglove | mid Mar – Jul | Aug – early Mar | Over 6” high only | Late Oct – early Jul | When ground is frozen |
| <i>Agalinis skinneriana</i> M | Pale False Foxglove | mid Mar – Jun | Jul – early Mar | Over 6” high only | Late Oct – early Jul | When ground is frozen |
| <i>Anemone caroliniana</i> P | Carolina Anemone | Jun – early Apr | mid Apr - May | + | Jun – early Apr | When ground is frozen |
| <i>Anemone multifida</i> P | Hudson Bay Anemone | Jun – early Apr | mid Apr - May | + | Jun – early Apr | When ground is frozen |
| <i>Agastache nepetoides</i> P | Yellow Giant Hyssop | Late Sep – early Jul | Late Jul – mid Sep | + | Mid Sep – late Jul | When ground is frozen |
| <i>Asclepias lanuginosa</i> P | Woolly Milkweed | Late Jul – early May | Late May – mid Jul | + | Mid Jul – late May | When ground is frozen |
| <i>Asclepias ovalifolia</i> P | Dwarf Milkweed | Mid Sep – May | Jun – mid Sep | + | Mid Sep – Jun | When ground is frozen |
| <i>Asclepias purpurescens</i> P | Purple Milkweed | Late Jul – early Jun | Late Jun – mid Jul | + | Mid Jul - late Jun | When ground is frozen |
| <i>Asclepias sullivantii</i> P | Prairie Milkweed | Aug – Jun | July | + | Aug - Jun | When ground is frozen |
| <i>Astragalus crassicaupus</i> P | Ground Plum | Jun – Apr | May | + | Jun - Apr | When ground is frozen |
| <i>Besseyia bullii</i> P | Kitten Tails | Full year | No restriction | + | Any season | When ground is frozen |
| <i>Cacalia tuberosa</i> P | Prairie Indian Plantain | Sep – early Jun | Late Jun – late Aug | + | Late Aug - late Jun | When ground is frozen |

**Authorized
February 2000**

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|--|--------------------------------|--|---|---|--|---|
| <i>Camassia scilloides</i> P | Wild Hyacinth | Full year | No restriction | + | Any season | When ground is frozen |
| <i>Cirsium hillii</i> P | Hill's Thistle | Sep – early Jun | mid Jun – Aug | + | Aug - mid Jun | When ground is frozen |
| <i>Cypripedium candidum</i> P | Small White Lady's- slipper | Jun – early May | Late May | + | Jun - early May | Not applicable |
| <i>Echinacea pallida</i> P | Pale Purple Coneflower | Sep – early Jun | Late Jun – Aug | + | Aug - Late Jun | When ground is frozen |
| <i>Fimbristylis puberula</i> P | Hairy Fimbristylis | Nov – Jun | Jul – Oct | + | Oct - Jul | When ground is frozen |
| <i>Gentiana alba</i> P | Yellow Gentian | Oct – Jul | Early Aug – late Sep | + | Late Sep - Early Aug | When ground is frozen |
| <i>Hypericum sphaerocarpum</i> P | Round-seed St. John's-wort | Sep – mid Jun | Late Jun – Aug | + | Aug - Late Jun | When ground is frozen |
| <i>Lespedeza leptostachya</i> P | Prairie Bushclover | Late Sep – early Aug | mid Aug – mid Sep | + | Mid Sep - mid Aug | When ground is frozen |
| <i>Lespedeza virginica</i> P | Slender Bushclover | Late Sep – early Jul | mid Jul – mid Sep | + | Mid Sep - mid Jul | When ground is frozen |
| <i>Lesquerella ludoviciana</i> P | Silver Bladderpod | Jun – Apr | May | + | Jun - Apr | When ground is frozen |
| <i>Liatris punctata</i> P | Dotted Blazingstar | Oct – Jul | Aug – Sep | + | Sep - Aug | When ground is frozen |
| <i>Opuntia fragilis</i> P | Brittle Pricklypear | July – May | June | + | July - May | When ground is frozen |
| <i>Orobanche fasciculata</i> P | Clustered Broomrape | Late Jul – early Jun | mid Jun – early Jul | + | Early Jul - mid Jun | Not applicable |
| <i>Parthenium integrifolium</i> P | Wild Quinine | Oct – May | Jun – Sep | + | Sep - Jun | When ground is frozen |

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|--|------------------------------|--|---|---|--|---|
| <i>Phlox glaberrima</i> P | Smooth Phlox | Aug – mid Jun | Late Jun - Jul | + | Aug – mid Jun | When ground is frozen |
| <i>Platanthera flava</i> P | Pale Green Orchid | Early Sep - early Jun | mid Jun – late Aug | + | Early Sep - early Jun | When ground is frozen |
| <i>Platanthera leucophaea</i> P | Prairie White-fringed Orchid | Sep – early Jul | mid Jun – Aug | + | Sep – early Jul | Not applicable |
| <i>Polygala incarnata</i> M | Pink Milkwort | Late Sep – Jun | Jul – early Sep | Over 1' high only | Early Sep - Jul | When ground is frozen |
| <i>Polytaenia nuttallii</i> M | Prairie Parsley | Sep – early May | Late May – late Aug | Not from late May to Sep | Late Aug - late May | When ground is frozen |
| <i>Prenanthes aspera</i> P | Rough Rattlesnake-root | Early Oct – mid Jul | Late Jul – late Sep | + | Early Oct – mid Jul | When ground is frozen |
| <i>Prenanthes crepidinea</i> P | Nodding Rattlesnake-root | Oct – Jul | Aug – Sep | + | Oct - Jul | When ground is frozen |
| <i>Ruellia humilis</i> P | Hairy Wild Petunia | Oct – early Jun | mid Jun – late Sep | + | Oct – early Jun | When ground is frozen |
| <i>Scutellaria parvula</i> var. <i>parvula</i> P | Small Skullcap | Late Aug - mid May | late May – early Aug | + | Late Aug - mid May | When ground is frozen |
| <i>Vaccinium caespitosum</i> P | Dwarf Huckle-berry | mid Sep – mid Jul | Late Jul – early Sep | + | mid Sep – mid Jul | When ground is frozen |
| <i>Viola fimbriatula</i> P | Sand Violet | Full year | No restriction | + | Any season | When ground is frozen |

KEY TO CHART:

† = No protected plant species may be annually mowed in excess of 5 consecutive years.

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